Ultra Enterprise
Workgroup, Departmental & Data Center Servers
Section 3

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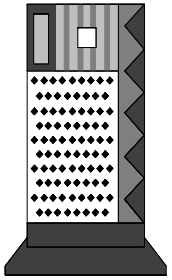
This is not an official Price List. Please consult the official Price Lists, or contact your Sun Sales Representative or Authorized Reseller before placing an order.

Ultra Enterprise 150 Server



Product Specifications	**Ultra Enterprise 150**
Packaging	Tower
CPU	UltraSPARC-I
Number of CPUs	1
Clock Speed	167 MHz
On-Chip Cache	32KB (16KB I-cache + 16KB D-cache)
External Cache	512KB
Main Memory	32MB - 1GB
Maximum Internal Disk	25.2GB Hot Plug
Maximum External Disk	324GB: Up to 4 SPARCstorage Array Model 112 or 1 SPARCstorage Array Model 210
I/O Slots	2 SBus
Ethernet	Fast Wide Ethernet, twisted pair standard (10- and 100-BaseT)
Solaris License	Solaris 2.5.1 or later
Performance	
SPECint95	6.34
SPECfp95	9.33
SPECrate_int95	57
SPECrate_fp95	84
AIM3	1,450
Laddis	2,102
Est. TPM	1,332

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Ultra Enterprise 150 Server - New Systems

This is a sample ordering guide for the Ultra Enterprise 150 server. Each step outlined by a large box in the guide represents a line item on a server sales order. A minimum legal configuration can be created by choosing steps 1 and 2 of the order process. Larger configurations can be created by choosing multiple options.

Step 1: (Choose only one)

TOWER OR RACK READY ENCLOSURE
New Systems Only

→ **E150-UBA1-CD** - Tower Enclosure
E150-UBA1R-CD - Rack Ready

Part Number	Description	List Price	Discount Category
E150-UBA1-CD	Enterprise 150 Tower System with 167MHz UltraSPARC-I processor, 0MB main memory, 2.1GB system disk, 4.2GB storage disk, 3.5" floppy drive, SunCD 12, 10BASE-T/ 100BASE-T, fast/wide SCSI, Solaris server license (including Solstice AdminSuite, DiskSuite, and Backup for Single Server)	$7,995	A
E150-UBA1R-CD	Enterprise 150 Rack Ready System with 167MHz UltraSPARC-I processor, 0MB main memory, 2.1GB system disk, 4.2GB storage disk, 3.5" floppy drive, SunCD 12, 10BASE-T/ 100BASE-T, fast/wide SCSI, Solaris server license (including Solstice AdminSuite, DiskSuite, and Backup for Single Server)	$7,995	A

OR

CHASSIS UPGRADE FROM ANY SPARCserver

→ **U-E150-UBA1-CD** - Tower Enclosure
U-E150-UBA1R-CD - Rack Ready

From	To	List Price	Discount Price
any SPARCserver	**U-E150-UBA1-CD** Chassis upgrade to Sun Enterprise 150 Tower System with one 167MHz UltraSPARC-I processor, no memory, 2.1GB internal system drive, 2.1GB internal storage drive, SunCD12 internal CD-ROM, 1.44MB internal floppy drive.	$7,245	A
any SPARCserver	**U-E150-UBA1R-CD** Chassis upgrade to Sun Enterprise 150 Rack System with one 167MHz UltraSPARC-I processor, no memory, 2.1GB internal system drive, 2.1GB internal storage drive, SunCD12 internal CD-ROM, 1.44MB internal floppy drive.	$7,245	A

NOTE: Upgrades configurable with the following: 167MHz UltraSPARC-I processor, 0MB main memory, 4.2GB system drive, 2.1GB storage drive, Solaris Server License, internal 3.5" floppy drive, SunCD12, a SunSwift card providing fast/wide SCSI and 100BaseT Ethernet, 1 year hardware and 90 day software SunSpectrum warranty.

Step 2: (Required)

SYSTEM MEMORY
SIMMs can only be added in pairs up to a maximum of 4 pairs. Maximum configuration is 8 SIMMs (base system does not include memory).

→ **7002A** - 64MB ECC memory expansion (2 x 32MB SIMMs)
7003A - 128MB ECC memory expansion (2 x 64MB SIMMs)
7004A - 256MB ECC memory (2 x 128MB SIMMs)

(X)7002A	64MB ECC memory expansion (2 x 32MB SIMMs)	$1,000	A*
(X)7003A	128MB ECC memory expansion (2 x 64MB SIMMs)	$2,000	A*
(X)7004A	256MB ECC memory expansion (2 x 128MB SIMMs)	$7,500	A*

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Ultra Enterprise 150 Server - New Systems (cont.)

Step 3: (Optional)

ADDITIONAL INTERNAL DISKS

Single disks can be added.
Maximum 12 disks per configuration.
(Base system includes 1 system disk and 1 data disk.)

→ **5214A** - 4.2GB Internal Fast/Wide SCSI-2 Disk

Part Number	Description	List Price	Discount Category
ADDITIONAL INTERNAL DISKS			
(X)5214A	4.2GB Internal Hot Plug Disk Drive, 7200 RPM, fast/wide SCSI-2 disk drive	$1,400	A*

Step 4: (Optional)

INTERNAL STORAGE

One internal 4mm tape drive may be added.

→ **6286A** - 12-24GB 4mm DDS-3 Tape Drive

INTERNAL STORAGE			
(X)6286A	12-24GB 4mm DDS-3 Internal Tape Drive	$2,125	A

* Maximum discount may apply

Step 5: (Optional)

NETWORK CARD

Up to 2 cards may be added.

→ **1042A** - SBus Quad Ethernet card (QFE)
1025A - SunFDDI Single-Attach SBus Adapter (SAS)
1059A - SunFastEthernet 10/100 SBus Adapter 2.0
1014A - Token Ring Interface/SBus (TRI/S)

NETWORK CARD			
(X)1042A	SBus Quad Ethernet card (QFE)	$1,995	A
(X)1025A	SunFDDI Single-Attach SBus Adapter 5.0 (SAS)	$2,500	A
(X)1059A	SunFastEthernet 10/100 SBus Adapter 2.0	$795	A
(X)1014A	Token Ring Interface/SBus (TRI/S)	$1,350	B

Step 6 (Optional):

CONSOLE:

Add optional 17" TurboGX color monitor

→ **X322A** - 17" TurboGX color monitor

CONSOLE			
X322A	17" color monitor, TurboGX frame buffer, and cable.	$2,450	A

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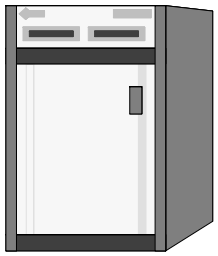
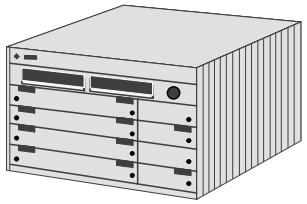
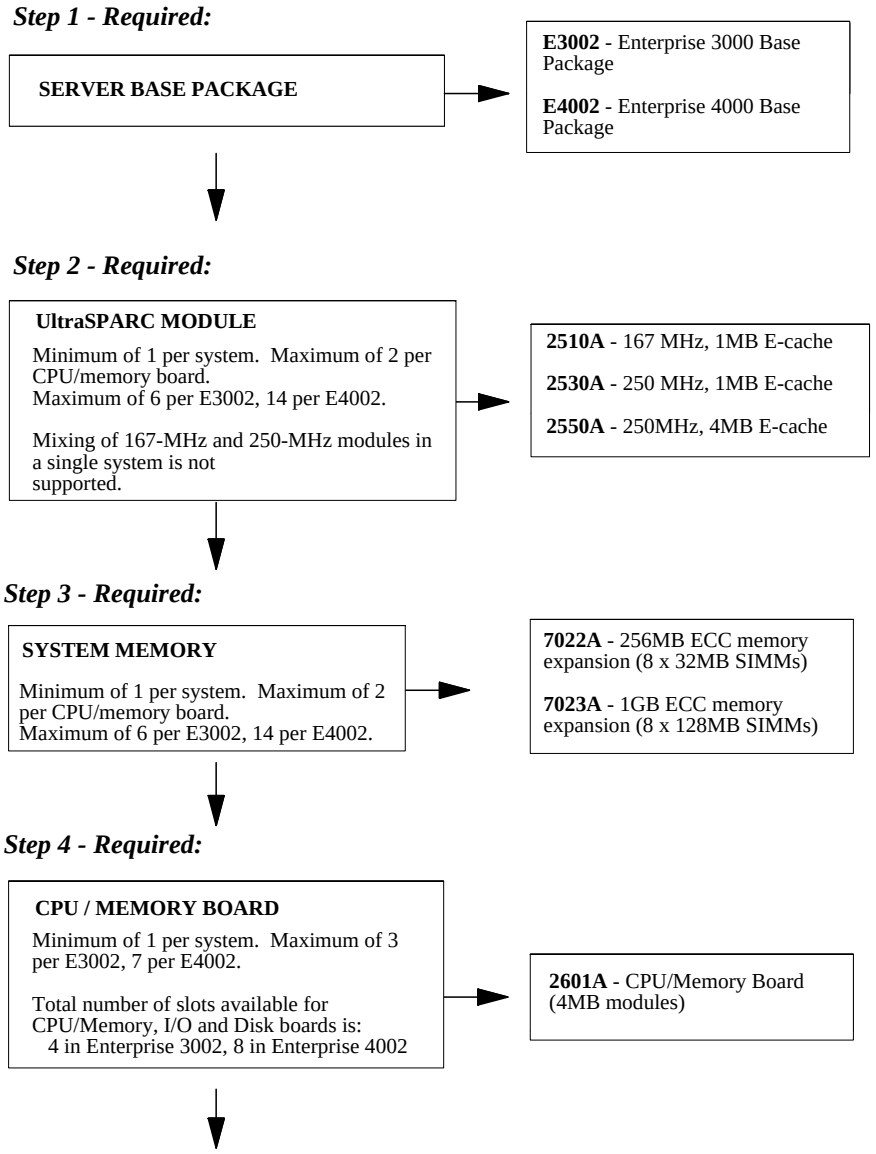
Ultra Enterprise 3000 and 4000 Servers

Product Specifications	 **Ultra Enterprise 3000**		 **Ultra Enterprise 4000**	
Packaging	Tower		Tabletop	
System Board Slots	4		8	
CPU	UltraSPARC-II		UltraSPARC-II	
Number of CPUs	1-6		1-14	
Clock Speed	250MHz		250MHz	
Cache per processor	Primary: 20KB instruction, 16KB on-chip Secondary: 1MB external		Primary: 20KB instruction, 16KB on-chip Secondary: 1MB external	
System Memory	64MB-6GB		64MB-14GB	
I/O Boards	1-3		1-7	
SBus Slots	2-9 (64-bit, 25MHz)		2-21 (64-bit, 25MHz)	
Maximum Internal Disk	42GB w/ 10 internal drives		16.8GB w/ fan disk boards	
Maximum Disk Storage	>2TB: Up to 20 SPARCstorage Array Model 100 or 200 series Up to 18 Data Center trays in 3 cabinets		>4TB: Up to 40 SPARCstorage Array Model 100 or 200 series Up to 42 Data Center trays in 6 cabinets	
RAS Features	Hot plug disks, Hot plug boards, Hot swap power, Hot swap cooling, Redundant power and cooling, Automatic System Recovery (ASR), SyMON, Remote Control, ECC protected data paths, ECC memory		Hot plug disks, Hot plug boards, Hot swap power, Hot swap cooling, Redundant power and cooling, Automatic System Recovery (ASR), SyMON, Remote Control, ECC protected data paths, ECC memory	
Solaris License	Solaris 2.5.1 or later		Solaris 2.5.1 or later	
Performance	**1 CPU**	**6 CPUs**	**6 CPUs**	**12 CPUs**
SPECint_rate95	93.9	556	556	1096
SPECfp_rate95	135	745	745	1436
Estimated TPM	2,100	11,000	11,000	18,100
NFSops/sec.@msec/op	4718@26.2 (2)	7808@23.0(4)	10,976@24.9	13,982@26.0 (8)

This is not an official Price List. Please consult the official Price Lists, or contact your Sun Sales Representative or Authorized Reseller before placing an order.

Ultra Enterprise 3000 and 4000 Servers - New Systems

This is a sample ordering guide for the Ultra Enterprise 3000 and 4000 servers. Each step outlined by a large box in the guide represents a line item on a server sales order. A minimum legal configuration can be created by choosing one option at each step of the order process marked "**Required**". Larger configurations can be created by choosing multiple options. Upgrade part numbers appear after this ordering flow chart.



Part Number	Description	List Price	Discount Category
E3002	Enterprise 3000 Server Base Package. Includes Tower Enclosure, 4-slot card cage, one SunCD 12, one Power/Cooling Module, and Solaris Server License.	$11,000	A
E4002	Enterprise 4000 Server Base Package. Includes Stand-Alone Enclosure, 8-slot card cage, one SunCD 12, two Power/Cooling Modoles, and Solaris Server License.	$42,000	A

NOTE: Requires Solaris 2.5.1 or later. Order E3002V5 & E4002V5 for Denmark. E4002V5 requires X389L.

ULTRASPARC MODULE			
(X)2510A	UltraSPARC module, 167 MHz, 1MB External Cache.	$12,000	A
(X)2530A	UltraSPARC module, 250 MHz, 1MB External Cache.	$16,000	A
(X)2550A	UltraSPARC module, 250 MHz, 4MB External Cache.	$19,000	A

NOTE: The 250-MHz modules requires Solaris 2.5.1 or higher. Installing software patch #103640 (version -06 or higher) is strongly recommended.

SYSTEM MEMORY			
(X)7022A	256MB ECC memory expansion (8 x 32MB SIMMs)	$4,750	A*
(X)7023A	1GB ECC memory expansion (8 x 128MB SIMMs)	$48,500	A*

NOTES: 1 Memory expansion occupies 1 memory bank consisting of 8 SIMMs.

Mixing memory options is supported as long as all SIMMs in 1 memory bank are the same.

CPU/MEMORY BOARD			
(X)2601A	CPU/Memory Board, two empty CPU slots, two empty memory banks (up to 4MB modules)	$9,000	A

* Maximum discount may apply.

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Ultra Enterprise 3000 and 4000 Servers - New Systems (cont.)

Step 5 - Required:

I/O BOARD:
Minimum of 1 per system.
Maximum of 3 per E3002, 7 per E4002.

Total number of slots available for CPU/Memory, I/O and Disk boards is 4 in Enterprise 3002 & 8 in Enterprise 4002.

→ **2610A** - SBus I/O Board

→ **2620A** - Graphics I/O Board

Part Number	Description	List Price	Discount Category
I/O BOARD			
(X)2610A	SBus I/O Board, three empty SBus slots, two empty 25 MB/sec. Fibre Channel sockets, one Fast/Wide SCSI interface, one 10/100 Mb/sec. Ethernet (Twisted Pair or MII) interface.	$6,500	A
(X)2620A	Graphics I/O Board, one UPA slot, two empty SBus slots, two empty 25 MB/sec. Fibre Channel sockets, one Fast/Wide SCSI interface, one 10/100 Mb/sec. Ethernet (Twisted Pair or MII) interface.	$7,000	A

Step 6 - <u>May Be Required</u> (see notes under pricing info at right)

POWER / COOLING MODULE:

Minimum of 1 per system.
Maximum of 3 per E3002, 4 per E4002.

One included in E3002 Base Package, two included in E4002 Base Package.

→ **954A** - Power / Cooling Module, 300W

POWER/COOLING MODULE			
(X)954A	Power/Cooling Module, 300W.	$1,800	A

<u>NOTES:</u> A minimum of one factory installed power/cooling module is <u>required</u> for:

- every 2 factory-installed system boards (2600A), and/or
- every 2 I/O boards (2610A or 2620A), and/or
- every 2 disk boards (5161A)

Step 7 - Optional

<u>E3002 Only:</u>

SECOND PERIPHERAL POWER SUPPLY:

Maximum of 1 optional per system.
Provides redundant power for internal peripherals.

→ **958A** - Second Peripheral Power Supply

E3000 SECONDARY POWER SUPPLY			
(X)958A	Second Peripheral Power Supply, 184W, Enterprise 3000 only.	$1,500	A

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Ultra Enterprise 3000 and 4000 Servers - New Systems (cont.)

Step 8 - Optional:

INTERNAL DISK OPTIONS:

E3002 Only - Maximum of 10 optional internal drives.

E3002 Only:

5153A - 2.1GB 7200 RPM internal disk drive
5214A - 4.2GB 7200 RPM internal disk drive
5251A - 9.1GB 7200 RPM Internal disk drive

E4002 Only - Maximum of four Disk Boards.

E4002 Only:

5161A - 4.2GB Disk Board

If necessary:
902A - 2 meter 68 pin external SCSI cable

Step 9 - Optional:

INTERNAL TAPE OPTIONS:

Maximum of 1 internal tape drive.

6104A - 2.5GB 1/4" Tape Drive
6213A - 14GB 8mm Tape Drive
6283A - 12-24GB 4mm DDS-3 Tape Drive

E3002 Only:
6234A - 20/40GB 8mm Tape Drive

E4002 Only:
6235A - 20/40GB 8mm Tape Drive

Part Number	Description	List Price	Discount Category
E3000 INTERNAL DISK OPTIONS			
(X)5153A	Internal 2.1GB 7200 RPM Fast/Wide SCSI-2 Disk Drive	$950	A*
(X)5214A	Internal 4.2GB 7200 RPM Fast/Wide SCSI-2 Disk Drive	$1,400	A*
(X)5251A	Internal 9.1GB 7200 RPM Fast/Wide SCSI-2 Disk Drive	$2,320	A*
E4000 INTERNAL DISK OPTIONS			
(X)5161A	4.2GB Disk Board, 2 x 2.1GB 7200 RPM Fast/Wide SCSI Disk Drives	$3,700	A*
(X)902A	2 meter 68-pin external SCSI cable	$125	N/D

* Maximum discount may apply.

INTERNAL TAPE OPTIONS			
(X)6104A	2.5GB 1/4-inch Internal Tape Drive	$900	A
(X)6213A	14GB 8mm Internal Tape Drive	$2,400	A
(X)6283A	12-24GB 4mm DDS-3 Internal Tape Drive	$2,125	A
E3000 INTERNAL TAPE OPTIONS			
(X)6234A	20/40GB 8mm Internal Tape Drive for the E3002	$6,400	A
E4000 INTERNAL DISK OPTIONS			
(X)6235A	20/40GB 8mm Internal Tape Drive for the E4002	$6,400	A

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Ultra Enterprise 3000 and 4000 Servers - New Systems (cont.)

Step 10 - Optional:

SPARCstorage ARRAY OPTIONS:

Maximum of 20 per E3002.
Maximum of 40 per E4002.

→ **X6517A** - Array Model 114, 6 x 4.2GB disk drives
X6518A - Array Model 114, 18 x 4.2GB disk drives
X6519A - Array Model 114, 30 x 4.2GB disk drives

Part Number	Description	List Price	Discount Category
SPARCSTORAGE ARRAY OPTIONS			
X6517A	SPARCstorage Array Model 114 with 25.2GB (6 x 4.2GB) 7200 RPM disk drives.	$24,100	A*
X6518A	SPARCstorage Array Model 114 with 75.6GB (18 x 4.2GB) 7200 RPM disk drives.	$41,500	A*
X6519A	SPARCstorage Array Model 114 with 126GB (30 x 4.2GB) 7200 RPM disk drives.	$58,900	A*

* Maximum discount may apply.

Step 11 - Optional:

EXTERNAL TAPE OPTIONS:

Maximum of 4 external tape drives.

Maximum of 4 SPARCstorage Libraries, SPARCstorage DLT4700 AutoLoaders, or Enterprise Tape Libraries.

→ **X6225A** - 400GB SSL, 1 tape drive, stackable unit.
X6227A - 140GB SSL, 1 Tape Drive
X6230A - 20-40GB 8mm Tape UniPack
X6232A - 20/40GB 8mm Tape Drive FlexiPack
X6057A - DLT 4000 FlexiPack Tape Drive
X6060A - DLT 7000 FlexiPack Tape Drive
X6071A - 140-280GB SPARCstorage DLT4700 Tape Auto-Loader in external desktop enclosure.
X6072A - 1TB Enterprise Tape Library ETL 4/1000.

EXTERNAL TAPE OPTIONS			
X6225A	400GB SPARCstorage Library, 1 tape drive, stackable unit.	$26,000	A
X6227A	140GB SPARCstorage Library, 1 tape drive	$8,500	A
X6230A	20-40GB 8mm Tape UniPack with 68-68 pin SCSI cable.	$6,625	A
X6232A	20-40GB 8mm Tape Drive FlexiPack	$6,900	A
X6057A	DLT 4000 FlexiPack Tape Drive	$6,900	A
X6060A	DLT 7000 FlexiPack Tape Drive	$10,900	A
X6071A	140-280GB SPARCstorage DLT4700 Auto-Loader in external desktop enclosure (50-68 pin SCSI cable).	$16,000	A
X6072A	1TB Enterprise Tape Library ETL 4/1000, floor standing unit.	$85,000	A

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Ultra Enterprise 3000 and 4000 Servers - New Systems (cont.)

Step 12 - Optional:

INTERFACES & HOST ADAPTERS:

These options may be required to support configured mass storage and tape devices.

→ **595A** - 25 MB/sec. Fibre Channel Optical Module.
1057A - 25 MB/sec. SBus Fibre Channel Host Adapter.
1062A - SBus Fast/Wide Differential Intelligent SCSI-2 Host Adapter (DWIS/S).
1063A - SBus Single-Ended Fast/Wide Intelligent SCSI-2 Host Adapter (SWIS/S)
X1018A - SunSwift SBus Adapter

Part Number	Description	List Price	Discount Category
INTERFACES & HOST ADAPTERS			
595A	25 MB/sec. Fibre Channel Optical Module	$600	A
1057A	25 MB/sec. SBus Fibre Channel Host Adapter	$1,600	A
1062A	SBus Fast/Wide Differential Intelligent SCSI-2 Host Adapter (DWIS/S).	$1,295	A
1063A	SBus Single-Ended Fast/Wide Intelligent SCSI-2 Host Adapter (SWIS/S)	$1,195	A
X1018A	SunSwift SBus Adapter	$1,095	A

Step 13 - Required:

POWER CORD / COUNTRY KIT:

- Order one kit at no charge.
- Order a Power Cord Kit when server does not include a monitor.
- Order a Power Cord Kit for each external peripheral if required.
- Order a Type 5 Country Kit when server includes a monitor.

→ **311L -** Power cord, N.A./Asian version
3500A - Type 5 Country Kit, N.A. version
3540A - Type 5 Country Kit, UNIX, N.A. version

POWER CORD/ COUNTRY KIT			
X311L	Localized power cord kit, North American/Asian (server country kit)	N/C	-
X3500A	Type 5 Country Kit, North American, U.S. or Canada only. Order only when purchasing monitors.	N/C	-
X3540A	Type 5 Country Kit, UNIX, North American, U.S. or Canada only. Order only when purchasing monitors.	N/C	-

NOTE: See the official End User Price Book for a complete listing of power cords and country kits.

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Enterprise 3000 and Enterprise 4000 Servers (Upgrades)

From	Part Number and Description	List Price	Discount Category
TO ENTERPRISE 3000 UPGRADES			
Sun 3XO, 4X0, 630MP or 670MP	**UG-3/4/6-E3002X** Chassis upgrade to Enterprise 3000 including Tower Enclosure, one SunCD 12, one Power/Cooling Module, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$21,100	A*
Any desktop server	**UGDTSERV-E3002X** Chassis upgrade to Enterprise 3000 including Tower Enclosure, one SunCD 12, one Power/Cooling Module, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$22,500	A*
TO ENTERPRISE 4000 UPGRADES			
Sun 3XO, 4X0, 630MP or 670MP	**UG-3/4/6-E4002X** Chassis upgrade to Enterprise 4000 including Standalone Enclosure, one SunCD 12, two Power/Cooling Modules, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$48,000	A*
SPARCserver 1000 or 690MP	**UGS1000-E4002X** Chassis upgrade to Enterprise 4000 including Standalone Enclosure, one SunCD 12, two Power/Cooling Modules, one CPU/Memory Board, one SBus I/O Board, clock board that supports 250MHz UltraSPARC module, and Solaris Server License.	$45,000	A*
Enterprise 3000	**UGE3000-E4002** Enclosure upgrade to Enterprise 4000 including Standalone Enclosure, one SunCD 12, card cage, peripheral power supply, one PCM, AC box, and clock board that supports 250MHz UltraSPARC module,.	$33,500	A*

* Maximum discount may apply.

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Module, System Board and Clock Board Upgrades for Enterprise 3000 and Enterprise 4000 Servers

From	Part Number and Description	List Price	Discount Category
ULTRASPARC MODULE UPGRADES			
Any SuperSPARC module	UG-M2510 Upgrade to 167 MHz UltraSPARC module with 1MB external cache.	$9,500	A*
Any 167 MHz UltraSPARC module	UG-M2510-M2530 Upgrade to 250 MHz UltraSPARC module with 1MB external cache.	$12,000	A*
Any 167 MHz UltraSPARC module	UG-M2510-M2550 Upgrade to 250 MHz UltraSPARC module with 4MB external cache.	$15,000	A*
Any non-UltraSPARC module	UG-M2530 Upgrade to 250 MHz UltraSPARC module with 1MB external cache.	$13,500	A*
Any non-UltraSPARC module	UG-M2550 Upgrade to 250 MHz UltraSPARC module with 4MB external cache.	$16,500	A*
SYSTEM BOARD UPGRADES TO ANY ENTERPRISE X000 CPU/MEMORY BOARD			
SPARCserver 1000(E)	UGSB1000-X-256M-A System Board Upgrade to Enterprise CPU/Memory Board with 256MB memory.	$11,890	A*
SPARCserver 2000(E)	UGSB2000-X-0M-A System Board Upgrade to Enterprise CPU/Memory Board with no memory.	$7,500	A*
SPARCserver 2000(E)	UGSB2000-X-256M-A System Board Upgrade to Enterprise CPU/Memory Board with 256MB memory.	$11,390	A*
Enterprise 2600	UGSB2600-2601-A System Board Upgrade to Enterprise CPU/Memory Board 2601 with no memory.	$7,500	A*
CLOCK BOARD UPGRADE (TO UPGRADE EXISTING ENTERPRISE X000 SERVERS TO ‘‘X0001" LEVEL)			
Enterprise X000	UG-ENT-CLOCKBD Enterprise System Clock Board upgrade.	$1,155	A*

* Maximum discount may apply.

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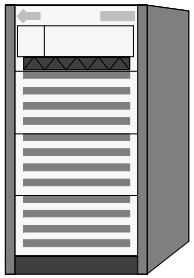
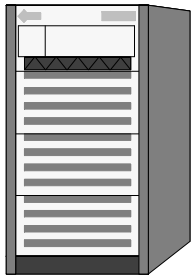
Ultra Enterprise 5000 and 6000 Servers

					
Product Specifications	**Ultra Enterprise 5000**		**Ultra Enterprise 6000**		
Packaging	Data Center Cabinet		Data Center Cabinet		
System Board Slots	8		16		
CPU	UltraSPARC-II		UltraSPARC-II		
Number of CPUs	1-14		1-30		
Clock Speed	250 MHz		250 MHz		
Cache per processor	Primary: 20KB instruction, 16KB on-chip Secondary: 1 MB external		Primary: 20KB instruction, 16KB on-chip Secondary: 1 MB external		
System Memory	64MB - 14GB		64MB - 30GB		
I/O Boards	1-7		1-15		
SBus Slots	2-21 (64-bit, 25 MHz)		2-45 (64-bit, 25 MHz)		
Maximum Internal Disk	216GB with 4 Data Center trays, 118GB with 4 SPARCstorage RSM trays, 189GB with 3 SPARCstorage Array Model 100 series		162GB with 3 Data Center trays, 88GB with 3 SPARCstorage RSM trays, 126GB with 2 SPARCstorage Array Model 100 series		
Maximum Disk Storage	> 6TB: Up to 40 SPARCstorage Array Model 100 or 200 series Up to 42 Data Center trays in 6 cabinets		> 10TB: Up to 60 SPARCstorage Array Model 100 or 200 series Up to 90 Data Center trays in 12 cabinets		
RAS Features	Hot plug disks, Hot plug boards, Hot swap power, Hot swap cooling, Redundant power and cooling, Automatic System Recovery (ASR), SyMON, Remote Control, ECC protected data paths, ECC memory		Hot plug disks, Hot plug boards, Hot swap power, Hot swap cooling, Redundant power and cooling, Automatic System Recovery (ASR), SyMON, Remote Control, ECC protected data paths, ECC memory		
Solaris License	Solaris 2.5.1 or later		Solaris 2.5.1 or later		
Performance	**1 CPU**	**12 CPU**	**12 CPU**	**24 CPU**	**30 CPU**
SPECint_rate95	93.9	1096	1096	2171	2630
SPECfp_rate95	135	1436	1436	2340	2580
Estimated TPM	N/A	18,100	18,100	24,200	N/A
NFSops/sec. @ msec/op	4718@26.6 (2)	N/A	19,469@22.8	27,862@17.9	N/A

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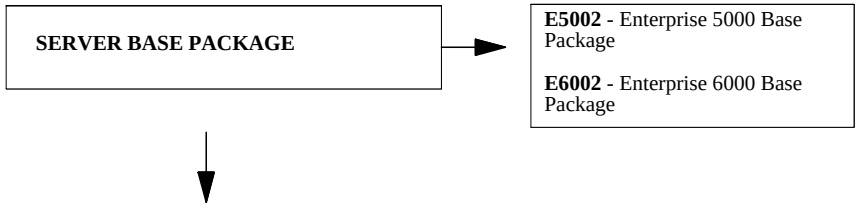
Ultra Enterprise 5000 and 6000 Servers - New Systems

This is a sample ordering guide for the Ultra Enterprise 5000 and 6000 servers. Each step outlined by a large box in the guide represents a line item on a server sales order. A minimum legal configuration can be created by choosing one option at each step of the order process marked **"Required"**. Larger configurations can be created by choosing multiple options.

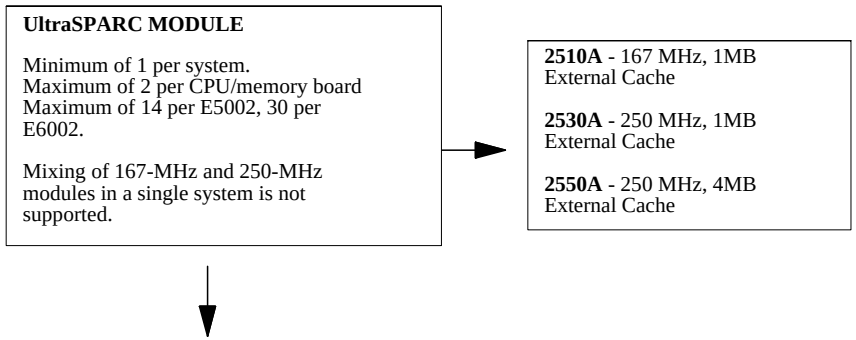
Upgrade part numbers appear after this ordering flow chart.

Step 1 - Required:



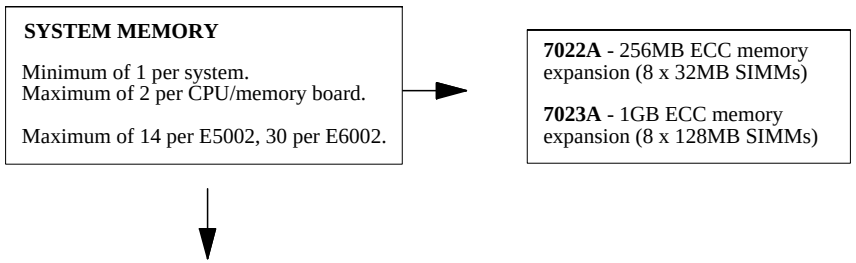
Part Number	Description	List Price	Discount Category
E5002	Enterprise 5000 Server Base Package. Includes Data Center System Cabinet, 8-slot card cage, one SunCD 12, two Power/Cooling Modules, and Solaris Server License.	$57,000	A
E6002	Enterprise 6000 Server Base Package. Includes Data Center System Cabinet, 16-slot card cage, one SunCD 12, two Power/Cooling Modules, and Solaris Server License.	$175,000	A

Step 2 - Required:



ULTRASPARC MODULES			
(X)2510A	UltraSPARC module, 167 MHz, 1MB External Cache.	$12,000	A
(X)2530A	UltraSPARC module, 250 MHz, 1MB External Cache.	$16,000	A
(X)2550A	UltraSPARC module, 250 MHz, 4MB External Cache.	$19,000	A

Step 3 - Required:



SYSTEM MEMORY			
(X)7022A	256MB ECC memory expansion (8 x 32MB SIMMs)	$4,750	A*
(X)7023A	1GB ECC memory expansion (8 x 128MB SIMMs)	$48,500	A*

NOTES: One Memory expansion occupies 1 memory bank consisting of 8 SIMMs. Mixing memory options is supported as long as all SIMMs in 1 memory bank are the same.

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Ultra Enterprise 5000 and 6000 Servers - New Systems (Cont.)

Step 4 - Required:

CPU / MEMORY BOARD

Minimum of 1 per system.
Maximum of 7 per E5002, 15 per E6002.

Total number of slots available for CPU/Memory Boards and I/O Boards is 8 per E5002 and 16 per E6002.

→ **2601A** - CPU/Memory Board (4MB modules)

Part Number	Description	List Price	Discount Category
	CPU/ MEMORY BOARD		
(X)2600A	CPU/Memory Board, two empty CPU slots, two empty memory banks.	$9,000	A

NOTE: One CPU/Memory Board supports up to 2 memory expansion options and up to 2 UltraSPARC modules.

Step 5 - Required:

I/O BOARD:

Minimum of 1 per system.
Maximum of 7 per E5002, 15 per E6002.

Total number of slots available for CPU/Memory Boards and I/O Boards: 8 per E5002 and 16 per E6002.

→ **Either:**

2610A - SBus I/O Board

Or:

2620A - Graphics I/O Board

	I/O BOARDS		
(X)2610A	SBus I/O Board, three empty SBus slots, two empty 25 MB/sec. Fibre Channel sockets, one Fast/Wide SCSI interface, one 10/100 Mb/sec. Ethernet (Twisted Pair or MII) interface.	$6,500	A
(X)2620A	Graphics I/O Board, one UPA slot, two empty SBus clots, two empty 25 MB/sec. Fibre Channel sockets, one Fast/Wide SCSI interface, one 10/100 Mb/sec. Ethernet (Twisted Pair or MII) interface.	$7,000	A

Step 6 - Optional:

POWER / COOLING MODULE:

Two included in Server Base Package.
Maximum of 4 per E5002, 8 per E6002.

One per 2 adjacent system boards is required.

→ **954A** - Power / Cooling Module, 300W

	POWER/ COOLING MODULE		
(X)954A	Power/Cooling Module, 300W.	$1,800	A

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Ultra Enterprise 5000 and 6000 Servers - New Systems (Cont.)

Step 7 - Optional:

INTERNAL DISK STORAGE OPTIONS:

Maximum of 4 Disk Boards in E5002, 2 in E6002.

- OR -
Maximum of 3 SPARCstorage Array Model 114's in E5002, 2 in E6002. Array Accessories Kit required.

- OR -
Maximum of 4 SPARCstorage Array RSM's in E5002, 3 in E6002.

→ **5161A** - 4.2GB Disk Board

6517AR4 - SSA, 6x4.2GB Disk
6518AR4 - SSA, 18x4.2GB Disk
6519AR4 - SSA, 30x4.2GB Disk

6515AR4 - 7x9.1GB SPARCstorage RSM

if required:
959A - SSA Accessories Kit

Step 8 - Optional:

INTERNAL TAPE OPTIONS:

Maximum of 1 optional Internal Tape Drive.
Maximum of 1 Multi-Tape Backup Tray or SPARCstorage Library.

Additional Expansion Tape Drive Options are available for the Multi-Tape Backup Tray.

→ **Choose from the following:**

6283AR4 - 12-24GB 4mm DDS-3 Internal Tape Drive

6104AR4 - Internal 2.5GB 1/4" Tape Drive

AND one from the following:

6292AR4 - 72-144GB 4mm DDS-3 Auto-Loader with Multi-Tape Backup Tray
6205AR4 - 14GB 8mm Tape Drive with Multi-Tape Backup Tray
6056AR4 - SPARCstorage DLT4000 Tape Drive with Multi-Tape BackupTray
6226AR4 - 400GB SSL Model 8/400.
6228AR4 - 140GB SSL, 1 Tape Drive

Step 9 - Optional:

EXTERNAL TAPE OPTIONS:

Maximum of 4 Enterprise Tape Libraries or SPARCstorage Libraries, or 8 SPARCstorage DLT4700 Autoloaders.

→ **X6072A** - Enterprise Tape Library ETL 4/1000
X6071A - 140GB DLT4700 Autoloader
X6225A - 400GB SSL
X6227A - 140GB SSL

Part Number	Description	List Price	Discount Category
INTERNAL DISK STORAGE			
(X)5161A	4.2GB Disk Board w/ 2x2.1GB 7200 RPM fast/wide SCSI disk drives	$3,700	A
(X)6517A(R4)	25.2GB SPARCsotrage Array (6x4.2GB 7200 RPM fast/wide SCSi-2 disks) w/ fibre channel cable	$24,100	A
(X)6518A(R4)	75.6GB SPARCsotrage Array (18x4.2GB 7200 RPM fast/wide SCSi-2 disks) w/ fibre channel cable	$41,500	A
(X)6519A(R4)	126GB SPARCsotrage Array (30x4.2GB 7200 RPM fast/wide SCSi-2 disks) w/ fibre channel cable	$58,900	A
(X)6515(R4)	7x9.1GB SPARCstorage RSM	$22,290	A
959A	SPARCstorage Array Accessories Kit	N/C	N/D
INTERNAL TAPE OPTIONS			
Choose from the following:			
6283A	12-24GB 4mm DDS-3 Internal Tape Drive	$2,125	A
6104A	Internal 2.5GB 1/4-inch Tape Drive	$900	A
AND one from the following:			
(X)6292A(R4)	72-144GB 4mm DDS-3 Tape Auto-Loader with Multi-Tape Backup Tray	$7,450	A
(X)6205A(R4)	14GB 8mm Expansion Tape Drive with the Multi-Tape Backup Tray (50-68 pin SCSI cable).	$4,700	A
(X)6056A(R4)	20-40GB SPARCstorage DLT4000 Expansion Tape Drive with the Multi-Tape Backup Tray (50-68 pin SCSI cable).	$8,400	A
(X)6226A(R4)	400GB 8mm SPARCstorage Library Model 8/400, rack-mountable unit in dark-grey color w/ tape drives	$26,000	A
(X)6228A(R4)	140GB 8mm SPARCstorage Library w/ 1 internal drive in a rackmount unit	$8,500	A
EXTERNAL TAPE OPTIONS			
X6072A	1TB Enterprise Tape Library ETL 4/1000, floorstanding unit. Requires Solaris 2.5 or later	$85,000	A
X6071A	140GB SPARCstorage DLT4700 autoloader in a desktop enclosure w/ SCSI cable. Requires Solaris 2.4 or later	$16,000	A
X6225A	400-800GB 8mm SOARCstorage Library Model 8/400, stackable unit. Requires Solaris 2.5 or later.	$26,000	A
X6227A	140GB 8mm SPARCstorage Library w/ 1 internal drive in a tower unit	$8,500	A

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Ultra Enterprise 5000 and 6000 Servers - New Systems (Cont.)

Step 10 - Optional:

INTERFACES & HOST ADAPTERS:

These options may be required to support configured mass storage and tape devices.

→

595A - 25MB/sec. Fibre Channel Optical Module

1057A - SBus 25MB/sec. Fibre Channel Host Adapter

1062A - SBus Differential Fast/Wide Intelligent SCSI-2 Host Adapter (DWIS/S)

1063A - SBus Fast/Wide Intelligent SCSI-2 Host Adapter (SWIS/S)

X1018A - SunSwift SBus Adapter

↓

Part Number	Description	List Price	Discount Category
INTERFACES & HOST ADAPTERS			
595A	25MB/sec. Fibre Channel Optical Module (FC25/OM)	$600	A
1057A	25MB/sec. Fibre Channel/SBus Host Adapter, single channel host connection for SPARCstorage Array	$1,600	A
1062A	SBus Differential Fast/Wide Intelligent SCSI-2 Host Adapter (DWIS/S).	$1,295	A
1063A	SBus Single-Ended Fast/Wide Intelligent SCSI-2 Host Adapter (SWIS/S) card	$1,195	A
X1018A	SunSwift SBus Adapter	$1,095	A

Step 11:

POWER CORD:

Order one kit for every Enterprise System or Expansion cabinet.
Maximum of 1 per cabinet.

→

3800A - Power Cord, U.S. version
3848A - Power Cord, International version

POWER CORDS			
3800A	Power Cord for Enterprise System and Expansion Cabinets, U.S. version (NEMA L6-30P plug).	N/C	-
3848A	Power Cord for Enterprise System and Expansion Cabinets, International version (IEC 309 plug, 32A, 250V).	N/C	-

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Enterprise 5000 and Enterprise 6000 Servers (Upgrades)

From	Part Number and Description	List Price	Discount Category
ENTERPRISE 5000 UPGRADES			
SPARCserver 1000, 690MP	**UGS1000-E5002X** Chassis upgrade to Enterprise 5000 including System Cabinet, one SunCD 12, two Power/Cooling Modules, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$57,500	A*
SPARCcenter 2000	**UGS2000-E5002X** Chassis upgrade to Enterprise 5000 including System Cabinet, one SunCD 12, two Power/Cooling Modules, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$49,500	A*
Enterprise 3000	UGE3000-E5002 Enclosure upgrade to Enterprise 5000 including rack, one SunCD 12, card cage, AC box, SCSI Interface assembly, 1PCM, peripheral power supply, and key switch assembly.	$51,000	A*
ENTERPRISE 6000 UPGRADES			
SPARCcenter 2000(E)	**UGS2000-E6002X** Chassis upgrade to Enterprise 5000 including Data Center System Cabinet, one SunCD 12, two Power/Cooling Modules, one CPU/Memory Board, one SBus I/O Board, and Solaris Server License.	$120,500	A*
Enterprise 4000	**UGE4000-E6002** Enclosure upgrade to Enterprise 6000 including rack, SunCD 12, card cage, AC box, SCSI Interface assembly, and key switch assembly. Includes clock board that supports 250MHz UltraSPARC modules.	$145,000	A*
Enterprise 5000	**UGE5000-E6002** EnEnclosure upgrade to Enterprise 6000 including rack, SunCD 12, card cage, AC box, SCSI Interface assembly, and key switch assembly. Includes clock board that supports 250MHz UltraSPARC modules.	$128,000	A*

* Maximum discount may apply.

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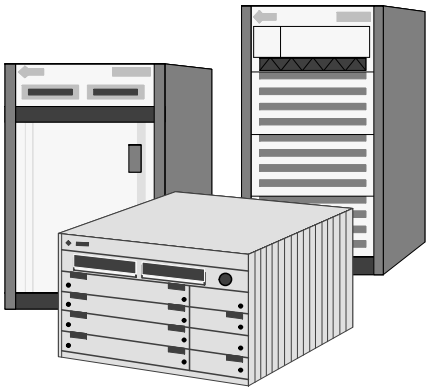

Module, System Board and Clock Board Upgrades for Enterprise 5000 and Enterprise 6000 Servers

From	Part Number and Description	List Price	Discount Category
ULTRASPARC MODULE UPGRADES			
Any SuperSPARC module	UG-M2510 Upgrade to 167 MHz UltraSPARC module with 1MB external cache.	$9,500	A*
Any 167 MHz UltraSPARC module	**UG-M2510-M2530** Upgrade to 250 MHz UltraSPARC module with 1MB external cache.	$12,000	A*
Any non-UltraSPARC module	**UG-M2530** Upgrade to 250 MHz UltraSPARC module with 1MB external cache.	$13,500	A*
SYSTEM BOARD UPGRADES TO ANY ENTERPRISE X000 CPU/MEMORY BOARD			
SPARCserver 1000(E)	**UGSB1000-X-64M** System Board Upgrade to Enterprise CPU/Memory Board with 64MB memory.	$10,550	A*
SPARCserver 1000(E)	**UGSB1000-X-256M-A** System Board Upgrade to Enterprise CPU/Memory Board with 256MB memory.	$11,890	A*
SPARCserver 2000(E)	**UGSB2000-X-0M-A** System Board Upgrade to Enterprise CPU/Memory Board with no memory.	$7,500	A*
SPARCserver 2000(E)	**UGSB2000-X-256M-A** System Board Upgrade to Enterprise CPU/Memory Board with 256MB memory.	$11,390	A*
CLOCK BOARD UPGRADE (TO UPGRADE EXISTING ENTERPRISE X000 SERVERS TO ‘‘X0001" LEVEL)			
Enterprise X000 servers	**UG-ENT-CLOCKBD** Enterprise X000 Clock Board Upgrade.	$1,155	A*

* Maximum discount may apply.

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